Brewer
12

Brewer
12

August 27th
Camp 142, on
Truckee River near Knoxville

2161

(Probably = 2157) In swamp by
river near Camp; Stam
spiked, often just at apex
foliage - often 5 ft high and
more

28th August -
Crossed this pass
from Squaw Valley towards
Forest Hill, 8,826 ft ft alt
Abies Williamsonii grows 3 ft in
diam, and P Balforiana as
large within 100 ft of summit
on the N side of summit
some of the latter very large - 6 ft
in diam -

2162

Foliage: pubescent - shrubs 4 to 6 ft. high 8.80 [illegible]

2163

Oenothera?: near summit in sunny place - fls bright one red - 8.80 [illegible]

2164

Cor rich deep blue - near summit on both sides of Pan in wet sunny places - Cor whiter in the bud 8.80 [illegible]

2165

Fls branded more or less - pink - after nearly smooth - by stream in Pan - 8.80 [illegible]

29th August to 25th Sept
came on to
Forrest Hill across cañons &c.
thence to Grass Valley - thence
back to near Downieville and
thence up to Lassens Butte -
In cañons of Yuba
and American rivers Taxus
and Torreya were seen
Oreodaphne as a shrub and
Arbutus as small tree

2166

Composite in wet places by
Robinsons Flat -; fls white -

2167

Fern from hill sides & shady
cañons - abundant in Fat
Hills -

2168 [illegible]

In Cañons of American River seen in several other Cañons to above Forest Hill.
This also occurs in the Foot Hills quite abundantly back of Big Oak Flat. The "Nutmeg Ranch" named from four trees on it
No large trees observed —

2169 [illegible]

Grass; seen near all the Hot Springs S.E of Lassens Butte seen quite near the hot water.

2170 [illegible]

Moss from head of Willow Lake (a little lower than Camp 148) forms large spongy bogs

2171 Moss from Cañons of American River on Rocks —

Sept 24th

2172

Moss from same place –

2173

Arum? pond near 149 Peck

2174

Moss: from rocks part of year covered with water in Cañons – N of Genesse Valley –

2175

Fls pale blue without, white within, spotted with greenish spots, cir with 2 to 3 small points between each division Wet meadows by 149 – Seen also at Silver Lake Valley on Amador road

[illegible]

Camp 149 on S. slope of [illegible] Peak
at alt. about 7,600 ft., the Summit
of [illegible] 10,571 ft.
The [illegible]
at alt. about [illegible] ft.

26th Sept - and 28th
Climbed Lassens
Peak, and 28th made an
excursion around N side of
it -
At Camp 149, a few Pinus
Contorta, and much Abies
Williamsonii, a most beautiful
tree and more abundant
here than on the Southern Mts.
We have from P. balfoniana
P. flexilis above, & Picea Amabilis
is more scarce.
Less vegetation on Lassens
than on Southern Mts - The
soil is drier, or poorer, & like
that of Mt. Shasta -
The most of these specimens
are from above 9000 ft.

2176 Carex
Common on the dry sandy places on the volcanic soil grows up to the crater of the Peak - [illegible]

2177
Fern; among rocks near camp

2178 Carex
Dry places - [illegible]

2179 [illegible]
Shrubby; grows on dry sandy soil to near summit -

2180 [illegible]
H. purple - Common to 10000 ft. - seen on most high places -

2181

fruit: rocks at 9000 ft.

2182

Compositae – in dry places –

2183

Fern: among rocks above Camp – abundant –

2184

Dry places at 9000 ft.

2185

Moss: on soil at 8000 ft.

2186

At 9000 ft. above snow in Cañon –

2187

Fern among rocks – 8000 to 10000 ft.

October 1st & 2d

Came on to Pitt River —

East of ~~Squaw~~ Hill Creek over Lava table P. Jeffryii some lambertiana — but in sinking to Valley P. Sabiniana and Contorta, Q. Californica & in valley Q. Hindsii, with large acorns, much Enlarged almost Pear shaped — thus with small thin Cup.

2188 B[illegible]

Leaves pellate — Eliptical, upper side green — lower redish brown, In still water at margin of river 2 to 5 feet deep — leaves floating [illegible]

2189 D[illegible]

Patents in margin of river, or in still water among tules. Fl & fruit Entirely gone

Pitt Rec

2190 Lemna

on still water - among Isles

2191 Crataegus

By river -; thorns below pedunculus 1 or 2 or 3 together -

2192 Prunus

Wild Plums - bushes 3 to 10 feet high - Generally 4 to 5 ft; Crabbed, among rocks, fruit red, pervant pleasant to the taste, and gathered in large quantities by the Indians The Verryman here has many dried -

2193 Rhus

Over like R. Aromatica; berries abundant, red - I saw to be much Eaten by the Indians, beaten up with Acorns

October 5th to 6th

At Pitt and

Fall Rivers

October 6th to 10th

Fort Crook to

Yreka - Beautiful forests of pines; P. contorta, P. ponderosa P. Jeffryii; Picea grandis Douglassii & Libocedrus over the volcanic hills.

About the base of Mt. Shasta, as well as about that of Lassens Peak much black lichen - trail from the trees -

Vegetation does not appear to extend much above 6000 ft. on Mt. Shasta. P. flexilis apparently ceases between 6000 & 10000 ft.

2194

Lichen: black, trailing from dead trees about Camp. 153 & 154

Noticed also about Lassens Peak at 6000 to 8000 ft. alt.

Lava plateaus

Lava plateaus between Mt. Shasta and Yreka -
Stunted growth of cedars (Juni=
=perus) and shrubby Compositae principally Linosirus

Near the Oregon line, over the Mts is much oak chapparel, with leaves like Q. Hindsii
Q Hindsii is in the valley of Cotton wood Creek, with Enor=
=mous acorns; gland very large in comparison with the cups -

—"—

On getting into the Cañon of the Klamath River, between Scotts River & Hopping Camp the prevailing Coniferae are

P. lambertiana; an occasional
P. ponderosa, some Libocedrus
much A. Douglasii and
an occasional Taxus
One Taxus on Indian Creek
measured 7 ft. in circumference
The oaks are:

Q. Californica
Q. Fulvescens
Q. Hindsii
Some Arbutus

More mosses occur on the
trees and rocks below
Ranch and over the Siskiyou
Mts.

2195

Moss: on trunks of trees
along river near Happy Camp
common & abundant - fronds
pendent - 26 Oct

2196

Moss: on rotten logs in forest in Cañon of Klamath River near Happy Camp - 26th Oct -

2197

Moss: Siskiyou Mts, at alt of 4000 to 5000 ft on base of trees 27th Oct -

2198

Moss: on clay bank in dense shade among the Redwoods near Crescent City 5th Nov

2199

Polypodium

on trees near Crescent City - these grew in the forks of the trees and in masses - oftenest on deciduous trees, but also on firs sometimes on dead trees, and

smaller on the ground, but only near the Sea - Grows in trees to the height of 80 or 100 ft. Not seen in the State before reaching Crescent City, but it probably occurs along the coast

2200

Not seen before striking the coast, but abundant on the immediate margin of the sea leaves drooping: foliage very dark green, the under side of the leaves silvery - tree seldom over 3 ft. diam -

2201

Frm: in trees like 2199, but not so abundant -

2202

Fern: abundant in the woods near Crescent City - Grows in bunches - very often 4 ft high, as often more - In shady damp forests -

2203

Hollow: Near Crescent City & near sea in Moist places

2204

Hollow: Wet places by the sea at Crescent City

2205

Fern: on rotten wood near sea at Crescent City

2206 Juniperus

Trailing, on hills near sea, also seen very abundantly over the Serpentine Hills of Del Norte Co

2207 [illegible]

Over the Serpentine hills of Del Norte County; small tree, fruiting, often when but 2 ft. high and very commonly at 3 ft. – A single small grove; also seen on the East side of Mt. Shasta –

2208

Fern in bunches in shady wood – damp ground near Crescent City in the Redwoods –

28th October –

Visited a Tanner a few miles East of Waldo – (Sailor diggings) Josephine County Oregon –

He uses Black Oak bark (Q. Californica) which is thicker than the white oak bark used East – It makes firm leather but is darker than that tanned with the Eastern White Oak –

At present much bark of A Douglasii is mixed with this as this mixture makes heavier leather

The White oak of this region has too much thick outer bark often 3 a 5 inches –

Many white oaks in the Valley with thick round acorns, my light colour bark (like Q alba)

legres glossy above, but habit of the tree precisely like G. Hindsii in California

— " —

Darlingtonia Californica

In Southern Oregon, and N. W. California, in Del Norte Co. over a large development of Serpentine the Darlingtonia very abundant, around Spring and small streams of running water - at alt of from 500 to 3000 ft. They also occur but a few miles from the sea

Hundreds of the leaves were examined by Mr King & myself and we found that all the perfect ones contained water, and all contained insects. but all did not grow in the water

The nectar white & limpid but with a disgusting taste from the dead insects
Near Rockland it was very abundant – one leaf collected by Mr King was 2 ft 9 in high
Plant bitter –
The leaves generally turn a half revolution, the spiral usually to the left – (like an ordinary screw) but sometimes in an opposite direction
All these localities are on serpentine soil, generally very red with iron, and by running water.

On these ~~xxx~~ serpentine ridges which extend to the sea is much low chaparral; manzanita, garrya, oaks &c.
Pinus tuberculata in small trees

bearing cones when but two feet high. Also the P. contorta which descends to the sea coast and nearer the sea the cones are often persistent for many years

A belt of heavy timber stretches along the sea, mostly Red wood, but only extends 6 to 8 miles inland – Many of the trees of gigantic proportions – The largest I saw was on Smith River – well formed and very regular, less swelling at the base than is usual and was 58 ft in circumference, but many much larger are reported

Thousands of trees grow here – the forest very dense & the ground covered with ferns & mosses – In the open spaces

Plum Agailina grows of Enormous size, many of the plants being 6 to 8 ft. high -

Immense quantities of Drift-wood lie along the Coast some were measured - they were cast up by the floods of the winter of 1861-2 and are now much-worn, and the bark gone

The following measurements are of trees lying near Crescent City

200 ft. long		10 ft. Diam at Base
191 "	"	2'4" Diam at little End
170	Pine	
154		4 ft. at little End
178		4'2" " " " branches at 130 ft. in 7 ft. diam. at the Smallest place below

123 ft long 4' 10" at little End
160 - " forked - one fork 160 - other 210
134 " 3 ft 10 in at little End
124 " 10 " Diam 10 ft from base
180 3 ft 9" at little End
148 2½ " " "
210 3 ft " " "

All these were Redwood
Except the one Pine mentioned
and many more were Equally
large —

——— " ———

2209 Moss on Rock on Pyramid Peak
at Alt of 8000 ft

2210 Moss: Siskiyou Mts, by Spring
4000 to 5000 ft 27 Oct

~~2211 Klamath Riv near River Ferry~~

2211 Siskiyou Mts: at base of trees 4000 to 5000 ft 27 Oct

2212 Klamatte River; near Rives Ferry October —

2213 On ground near Crescent City — November —

2214 With last

2215 Moss on ground and base of trees — C. City

2216 Carex

Carex 1 ft high — anthers yellow wet sandy soil — Fort Mohave April 6 — 1864 Collected by J. G. Cooper —

The following plants were collected by Dr J.G. Cooper — (His labels copied) 1860-1-2

2217

Grass: Fort Mohave — J.G.C.

2218

Grass: 6 in. high, plant in fruit Grand Plains at Fort Mohave
J.G.C —

2219

Gran — 5 ft — green — bottom lands Mohave river — the best gran — June 3. 1863 — J.G. Cooper

2220

Gran 2 ft high — Camp Cady Mohave river — June 2d 1861
J.G.C.

2221

Gran: Greenish yellow; marsh at Soda Lake - (Sink of the Mohave)
31st May /61 J.G.C.

2222

Gran: 10 ft high - with last -
May 31st J.G.C
Plant faded -

2223

Gran: 2 ft high. Providence Mt. Cop
Conv W a Cajon Pass,
29 May 61 - J.G.C.

2224

Gran: 2 ft, Greenish purple -
Mts East Slope of Providence
range -
May 29 - 61 - J.G.C

2225

Gran: 2 ft. high - Summit of
Providence Mts - 5000 ft.
29th May/61 J. G. Cooper

2226

Gran: 6 in - anthers purple - Sum=
=mit of Providence Mts -
May 29th 1861 J. G. C -
Buffalo Grass ♁

2227

Gran: 3 ft. high - greenish brown
Colorado - Lat 35°
May 19, 1861 J. G. C
Gardens introduced?

2228

Gran: greenish yellow ÷
Garden - introduced?
Colorado Valley
20 May 61 J. G. C

2

2

2

2

2

2229

Gran: Mohave. May 61 - J.G.C.

2230

Gran: 4 ft. high - greenish purple
Fort Mohave Feb 24 - J.G.C.

2231

Gran 3 ft. high. Anthers purple
in tufts purplish: Sandy bottom
Fort Mohave. March 25/61 J.G.C.

2233

Gran: 4 ft. Greenish - Sand
near sea shore at San Diego
March 19th 62 J.G.C.

2232

Gran: 2 ft: Sand near sea
beach San Diego
March 21st 62

2234

2 ft.: Yellow - Gravel Hill
San Diego, April 3d /62 - J.G.C

2235

Grass: 4 ft. Greenish - Sand at
Sea beach. San Diego -
April 3d /62 J.G.C.

2236

2 ft.: Greenish: milk last
March 16 /62 J.G.C -

2237

30 ft. woody: fl.? damp soil
introduced - rare - San Diego
March 15 /62 J.G.C

2238

3 in. Grayish - pastures: San Diego
March 15 /62 J.G.C

2239

San Diego - March 1862 - J.G. C

2240

3 ft - Greenish - dry hills San Diego 7th March 62 - J.G. C

2241

Pinkish: gravel plain - Fort Mohave - 23d Feb 61 - J.G. Cooper

Grasses from Belander, collected by Dr Hillebrand — Big Island

2242 Big Trees

2243 Do

2244 Do

2245 Do

2246 Do

2247 Do

2248 Do

Big Trees, 4788 ft alt

Plants from Big Trees - collected by Dr Hillebrand -

2249 Big Trees

2250 Do

2251

2252

2253

2254

2255

Plants from Big Trees - collected by Dr. Hillebrand -

2256

2257

2258

Plants from near Virginia City
2259 Collected by H. G. Blumer

2260

From the Pearine Dist -

2261

2262

Plants from near Virginia City
Collected by H. H. Blomer

2263

2264

2265

2266

2267

2268

2269

Grasses by Bolander 1863

2270 Swamp S.F.

2271 Do

2272 Do

2273 Do

2274 Oakland Hills – habit of bunch grass

2275 Fort Point

2276 Oakland Hills

Grasses from Bolander

2277 Fields

2278 Along Bay and on dry hills

2279 Marin bay - Red-woods.

2280 common on plains.

2281 Hills

2282 About bay

2283 Hills

2284 Marin co

2

22

2

2

2

2

2

2

2

Grasses from Bolander

2285
San Francisco

2286
Swamps S.F.

2287
Do

2288
Do

2289
Oakland Hills

2290
Swamps

2291
Oakland Hills

2292
Do

Grasses from Bolander

2293

Oakland Hills

2294

Bay

2295

Swamps - S.F.

2296

Dry Hills

2297

2298

Highest point of Oakland Hills - but one bunch found

2299

Marin Co - in Creek

Carices collected by Dr. W. Hellebrand

Plants by Bolander

2300 Low hills Oakland

2301 Swamps S.F. Since filled up

2302 Bay from heads

2303 Tomales Bay

2304 Big Trees (H)

2305 Big Trees (H)

2306 Do Do

2307 " Do Do

2

2

2

2

2

2

2

2

2

Lichens collected by Dr Wm Hillebrand

2308 Big Trees - (H)

2309 Big Trees (H)

2310 Big Trees (H)

2311 Big Trees (H)

2312 Big Trees (H)

2313 Big Trees (H)

2314 Big Trees (H)

2315 Big Trees (H)

2

2

2

2

2

2

2

2

2

Cancas collected by Hillebrand

2316
Big Tree - (H)

2317
Big Tree (H)

2318
Big Tree (H)

2319
Big Tree (H)

2320
Big Tree (H)

2321
Big Tree (H)

2322
Big Tree (H)

2323
Big Tree (H)

2324
Big Tree (H)

Plants from Hillebrand & Bolander —

Cancs by Dr Hillebrand

2325 Sandwich Islands

2326 Do Do

2327 Do Do

2328 Do Do

2324 San Francisco — Bolander —

2330 Swamps - S.F. (B)

2331 Big Trees (H)

2332 Do (H)

2333 Big Trees (H)

2334

Big Trees - H

2335

Do

2336

Do

2337

Do

2338

Do

2339

Do

2340

Do

2341

Do

2342

Do

2343

Swamp S.F. (Bolander)

2344 Swamps, S.F. Bolander -

2345 Do Do Do

2346 Virginia City — Bloomer

2347 Do Do

2348 Do Do

2349 Rivulets of G & C Mill - V City - Bloomer

2350 G & Curry Mill - V City - Bloomer

2351 Virginia City - Bloomer

2352 V City - Bloomer

2353 Do Do

Miscellaneous plants from the Bay region by Bolander –

2354

Virginia City - Blomer

2355

San Francisco - Bolander

2356

do do do

2357

San Francisco -

2358

Warm ley

2359

Oakland Hill

2360

Small Shrub - Warm ley -

2361

San Francisco

2362

Swamp S.F.

2363

do do

Plants by Bolander—

2364

Swamp S.F.

2365

Different from the , a low straggling or creeping, shrubby plant in pure sand – S.F.

2366

Swamp S.F.

2367

Little plant that covers large patches in salt marshes–

2368

Salt marshes – shrubby & very hard to dry

2369

Swamps S. Fran^{co}

2370

Shrubby – Sand Hill S.F.

2371 Tamalpais

2372 Sand Hill S.F. - my Common

2373 Sand Hills - S.F.

2374 Tamalpais

2375 Oakland Hills

2376 Marshes - S.F.

2377 Oakland Hills

2378 Salt Marshes

2379 Oakland Hills

2380 Sandy Hills - S.F.

2381

Oakland Hill

2382

Salt Marsh

2383

Ditches - Oakland Hill

2384

Marsh ley

2385

Marsh ley

2386

Marsh ley — Common

2387

Marsh ley - Common there -
very bright blue